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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/602,744	06/25/2003	Myoung-Kee Back	8733.849.00	1174	
30827 7.	30827 7590 06/27/2006			EXAMINER	
MCKENNA LONG & ALDRIDGE LLP			FERGUSON, MARISSA L		
1900 K STREET, NW WASHINGTON, DC 20006			ART UNIT	PAPER NUMBER	
			2854	<del></del>	
			DATE MAILED: 06/27/200	6	

Please find below and/or attached an Office communication concerning this application or proceeding.

			(d)
***	Application No.	Applicant(s)	76
Office Action Comments	10/602,744	BAEK ET AL.	
Office Action Summary	Examiner	Art Unit	
	Marissa L. Ferguson-Samreth	2854	
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet with the	correspondence address	
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.1: after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period of Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATIO 36(a). In no event, however, may a reply be ti will apply and will expire SIX (6) MONTHS fror , cause the application to become ABANDON	N. mely filed  n the mailing date of this communication. ED (35 U.S.C. § 133).	
Status			
1) Responsive to communication(s) filed on 13 A	<u>pril 2006</u> .		
	action is non-final.		
3) Since this application is in condition for alloward	nce except for formal matters, pr	rosecution as to the merits is	
closed in accordance with the practice under E	Ex parte Quayle, 1935 C.D. 11, 4	53 O.G. 213.	
Disposition of Claims			
4) Claim(s) 1-15 is/are pending in the application			
4a) Of the above claim(s) is/are withdraw	wn from consideration.		
5) Claim(s) is/are allowed.			
6)⊠ Claim(s) <u>1-15</u> is/are rejected.			
7) Claim(s) is/are objected to.			
8) Claim(s) are subject to restriction and/o	or election requirement.		
Application Papers			
9)☐ The specification is objected to by the Examine			
10) The drawing(s) filed on is/are: a) acc			
Applicant may not request that any objection to the			
Replacement drawing sheet(s) including the correct			
11) The oath or declaration is objected to by the Ex	kaminer. Note the attached Offic	e Action of form PTO-132.	
Priority under 35 U.S.C. § 119			
12)⊠ Acknowledgment is made of a claim for foreign a)⊠ All b)□ Some * c)□ None of:	priority under 35 U.S.C. § 119(a	a)-(d) or (f).	
<ol> <li>Certified copies of the priority document</li> </ol>	ts have been received.		
2. Certified copies of the priority document			
3. Copies of the certified copies of the prio		ed in this National Stage	
application from the International Burea		ved.	
* See the attached detailed Office action for a list	of the certified copies not receive	eu.	
Attachment(s)			
1) X Notice of References Cited (PTO-892)	4) Interview Summar	y (PTO-413)	

U.S. Patent and Trademark Office PTOL-326 (Rev. 7-05)

Paper No(s)/Mail Date \_\_\_

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)

Paper No(s)/Mail Date. \_\_\_\_\_.

6) Other: \_\_\_\_.

5) Notice of Informal Patent Application (PTO-152)

#### **DETAILED ACTION**

## Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5, 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans et al. (US Patent 5,514,503) in view of Miyazaki et al. (US Patent 6,445,437).

Regarding claims 1, 3 and 10, Evans et al. teaches providing a cliché (14) having a plurality of grooves (Figure 2 and Column 5, Lines 36-60), filling Red, Green and Blue colored inks into the grooves of the cliché (Column 6, Lines 7-10), repositioning the Red, Green and Blue colored inks (Column 6, Lines 11-13), transferring the colored inks filled in the grooves of the cliché onto a printing roll (14) by rotating the printing roll (14) on the cliché in which the Red, Green and Blue colored inks are filled (Column 9, Lines 20-29) and applying the Red, Green and Blue colored inks on the printing roll onto of the substrate by rotating the printing roll across the substrate (column 10, Lines 38-45). However, he does not explicitly disclose providing a substrate, which is divided into an active area for realizing image and a dummy area for not realizing image areas.

Miyazaki et al. teaches a system for fabricating a liquid crystal display with a substrate (30) divided into a display area and a non-display area (Figures 1,2), wherein the off display area has a color filter area (33R,G,B). The off display taught by Miyazaki

Miyazaki et al. is a dummy area because it includes dummy pattern 22 as mentioned in Column 6, Lines 7-12 of Miyazaki et al.

It would have been obvious at the time the invention was to a person having ordinary skill in the art to modify the invention as taught by Evans to include an active area and a dummy area as taught by Miyazaki et al., since Miyazaki et al. teaches the areas in order to reduce display defects and exhibit high display performance.

Regarding claim 2, Evans et al. teaches wherein filling includes placing the Red, Green and Blue colored inks into the grooves of the cliché concurrently (Column 10, Lines 51-64)

Regarding claim 4, Evans et al. teaches wherein applying includes rolling the printing roll only once across the substrate (Figure 4 and Column 10, Lines 44-48).

Regarding claims 5 and 12, Evans et al. teaches forming a black matrix on the substrate between the Red, Green and Blue colored inks on the active area (Figure 4, Lines 1-13).

2. Claims 6-9,11 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans et al. (US Patent 5,514,503) in view of Miyazaki et al. (US Patent 6,445,437) as applied to claim 1 above, and further in view of Aoki et al. (JP 11-326621).

Regarding claims 6,8,9, 11 and 13-15, Evans et al. and Miyazaki et al. teach the apparatus and method claimed including wherein Red, Green and Blue color inks of the substrate are formed in at least one or more pixels when it is assumed that

respective red, green and blue sub-pixels are defined as one pixel as disclosed in Evans et al. (column 7, Lines 64-67). However, Evans et al. or Miyazaki et al. do not explicitly disclose forming a black matrix between the Red, Green and Blue ink/filter colored on the dummy area. Aoki et al. teaches a black matrix (28) formed between colored filters (27-1-27-3). It would have been obvious at the time the invention was to a person having ordinary skill in the art to further modify the invention as taught by Evans to include forming a black matrix in between a colored filter as taught by Aoki et al., since Aoki et al. teaches that it is advantageous to prevent image distortion.

Regarding claim 7, Evans et al. teaches wherein forming a black matrix includes patterning a thermoplastic resin (Column 5, Lines 36-60).

## Response to Arguments

- 3. Applicant's arguments filed 4/13/06 have been fully considered but they are not persuasive. Specifically, regarding claims 1-5 and 10, Miyazaki et al. teaches an off-display area that corresponds to a dummy are because it includes a dummy pattern (32 and Column 6, Lines 7-12).
- 4. Applicant's arguments with respect to claims 1-13 have been considered but are most in view of the new ground(s) of rejection.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marissa L. Ferguson whose telephone number is (571)

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272-2163. The examiner can normally be reached on (M-T) 6:30am-4:00pm and every other (F) 7:30am-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marissa L Ferguson Examiner Art Unit 2854

**MLF** 

Daniel J. Colilla Primary Examiner Art Unit 2854